

Claims:

1. Apparatus comprising
 - (a) a substantially rigid container defining at least one inlet port and at least one outlet port, and being sized and configured to define a first volume for receiving a liquid, solid particulate or slurry material;
 - (b) a flexible, substantially non-porous bag which forms a bag opening perimeter in sealed attachment to the container at the inlet port and being in an initial deflated state; and
 - (c) a vacuum pump in fluid communication with the rigid container through said outlet port, wherein during operation of the vacuum pump, a vacuum is created within the rigid container to thereby cause the bag in an initial deflated state to expand and form a vacuum within the bag to draw material through the inlet port and into the bag.
2. Apparatus according to Claim 1, wherein the outlet port is disposed relative to the inlet port so as to avoid drawing the bag or material within the bag into the outlet port during operation of the vacuum pump.
3. Apparatus comprising
 - (a) a substantially rigid container defining at least one inlet port, at least one outlet port and at least one sealable bladder port, and being sized and configured to define a first volume for receiving a liquid, solid particulate or slurry material;
 - (b) a flexible, substantially porous bag which forms a bag opening perimeter in sealed attachment to the container at the inlet port and being in an initial deflated state; and
 - (c) a vacuum pump in fluid communication with the rigid container through said outlet port, wherein during operation of the vacuum pump, a vacuum is created within the rigid container to thereby cause the bag in an initial deflated state to expand and form a vacuum within the bag to draw material through the inlet port and into the bag.
4. Apparatus according to Claim 3, wherein the outlet port is disposed relative to the inlet port so as to avoid drawing the bag or material within the bag into the outlet port during operation of the vacuum pump.

5. Apparatus according to Claim 3, further comprising
 - (d) a substantially non-porous bladder which forms a bladder perimeter configured for substantially sealed attachment to the container at the bladder port, so that when the bag contains slurry material and the bladder is attached to the bladder port and the bladder port is unsealed to the surrounding atmosphere, vacuum created within the rigid container may cause the bladder to expand into the container to encourage liquid from the contents of the bag to pass through the bag and out of the rigid container through the outlet port.
6. Apparatus according to Claim 5, further comprising an intermediate receiving tank in fluid communication with the vacuum pump and the outlet port, configured to receive liquid which passes through the outlet port during operation of the vacuum pump.
7. Apparatus according to Claim 6, wherein the outlet port is disposed relative to the inlet port so as to avoid drawing the bag or material within the bag into the outlet port during operation of the vacuum pump.
8. Apparatus according to Claim 3, further comprising
 - (d) a substantially non-porous bladder which forms a bladder perimeter configured for substantially sealed attachment to the container at the bladder port, so that when the bag contains slurry material, the bladder is attached to the bladder port, the bladder port is unsealed and a pressurized fluid outside of the container is applied to the bladder, the bladder expands into the container to encourage liquid from the contents of the bag to pass through the bag.
9. Apparatus according to Claim 8, further comprising an intermediate receiving tank in fluid communication with the vacuum pump and the outlet port, configured to receive liquid which passes through the outlet port during operation of the vacuum pump.
10. Apparatus according to Claim 9, wherein the outlet port is disposed relative to the inlet port so as to avoid drawing the bag or material within the bag into the outlet port during operation of the vacuum pump.

11. A method comprising

- (a) forming a vacuum in a substantially rigid container, which rigid container defines at least one inlet port and at least one outlet port, is sized and configured to define a first volume for receiving a liquid, solid particulate or slurry material, and includes a flexible, substantially non-porous bag which forms a bag opening perimeter in sealed attachment to the container at the inlet port, the bag being in an initial deflated state prior to vacuum formation, and
- (b) placing the bag interior volume in fluid communication with the liquid, solid particulate or slurry material through the inlet port so that, when the vacuum of step (a) is formed, the liquid, solid particulate or slurry material is suctioned into the bag when the vacuum of step (a) is formed in the container.

12. A method comprising

- (a) forming a vacuum in a substantially rigid container, which rigid container defines at least one inlet port, at least one outlet port and at least one sealable bladder port, is sized and configured to define a first volume for receiving a liquid, solid particulate or slurry material, and includes a flexible, substantially porous bag which forms a bag opening perimeter in sealed attachment to the container at the inlet port, the bag being in an initial deflated state prior to vacuum formation, and
- (b) placing the bag interior volume in fluid communication with the liquid, solid particulate or slurry material through the inlet port so that, when the vacuum of step (a) is formed, the liquid, solid particulate or slurry material is suctioned into the bag when the vacuum of step (a) is formed in the container.

13. A method according to Claim 12, wherein the material is a slurry material, and wherein the method further comprises

- (c) providing a substantially non-porous bladder in substantially sealed attachment to the container at the bladder port, and
- (d) after at least some of the slurry material is in the bag, opening the bladder port during formation of vacuum within the substantially rigid container so that the bladder expands into the container and into contact with the bag and its contents, so as to encourage liquid from the slurry material in the bag to pass through the bag as liquid filtrate.

14. A method according to Claim 13, further comprising
- (e) removing by vacuum the liquid filtrate from the container, and
 - (f) collecting the liquid filtrate in a collection tank intermediate to the container and a vacuum pump.